

What is claimed is:

1. An apparatus for use in performing an angioplasty procedure at the site of a stenosis in the vasculature of a patient which comprises:

5 an expanding member defining an axis, said expanding member having an external surface and being insertable into the vasculature of a patient for movement therein between a first configuration wherein the external surface is relative near said axis and a second configuration wherein the external surface is relatively far from said axis; and

10 a plurality of blade segments mounted on said expanding member, with each said blade segment being axially off-set from an adjacent blade segment to allow relative movement therebetween during a movement of said member from said first configuration into said second configuration to embed at least one of said plurality of blade segments into the stenosis while said external surface of said expanding member conforms with the stenosis and the vasculature of the patient.

2. An apparatus as recited in claim 1 further comprising a resilient base member mounted on said external surface of said expanding member, 20 said base member being substantially compliant with said external surface of said expanding member during movement thereof.

3. An apparatus as recited in claim 2 wherein said base member is elongated and mounted on said external surface of said expanding member with the direction of base member elongation substantially parallel to said 25 axis.

4. An apparatus as recited in claim 2 wherein said base member is made of a polyurethane material.

5. An apparatus as recited in claim 2 wherein said plurality of blade segments mounted on said base member are a blade unit and further wherein
5 said apparatus comprises a plurality of said blade units.

6. An apparatus as recited in claim 1 wherein each said blade segment is made of stainless steel.

7. An apparatus as recited in claim 1 wherein said apparatus comprises at least three said blade segments.

10 8. An apparatus as recited in claim 1 wherein each said blade segment is elongated defining a blade axis for each said blade segment, and each said blade is mounted on said expanding member with its blade axis substantially parallel to said axis of said expanding member.